UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,904	02/28/2002	Jon Gelsey	042390.P13786	4050

7590 01/26/2005

Blakely, Sokoloff, Taylor & Zafman
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1030

EXAMINER	
ALEJANDRO, RAYMOND	

ART UNIT	PAPER NUMBER
1745	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/086,904	GELSEY, JON	
	Examiner	Art Unit	
	Raymond Alejandro	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *65-97* is/are pending in the application.

4a) Of the above claim(s) *67-71,78 and 83-97* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *65-66, 72-77 and 79-82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This office action is being provided in response to the amendment filed on 11/08/04. The applicant has overcome certain objections and 35 USC 112 rejections. In addition, the 35 USC 103 rejection has been overcome. Refer to the abovementioned amendment for more details on applicant's rebuttal arguments. However, certain newly submitted claims (as all previously presented claim as well as original claims have been cancelled) are finally rejected over new art as set forth herein below and for the reasons of record:

Election/Restrictions

1. Newly submitted claims 67-71, 78 and 83-97 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: during this prosecution applicants initially elected to have examined the claims of Group I and particularly Species 2 (now cancelled claims 2-3, 10-14 and 24-29; and cancelled claims 30, 34-35, 37-43, 56-58 and 60-64) in response to the restriction requirement of 10/24/03 and 11/10/03. Accordingly, the examiner has currently identified and grouped claims 65-66, 72-77 and 79-82 as being directed to substantially the same subject matter of all cancelled claims. Thus, the remaining claims (claims 67-71, 78 and 83-97) are now deemed to be directed to mutually exclusive species claiming separate and/or distinct inventions, embodiments and/or characteristics.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution

on the merits. Accordingly, claims 67-71, 78 and 83-97 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

2. The amendment filed 11/08/04 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: (claim 65) a) "*to transfer a net amount of heat*". In this regard, it is noted the foregoing limitation is not supported by the applicant's original disclosure because the disclosure only states that: "*the rates of endothermic and exothermic hydrogen generation may be balanced to provide an overall thermally neutral hydrogen generation, or even a net endothermic hydrogen generation*" (SECTION 0033), and "*the net release of heat 180 by the hydrogen storage system 100 is low. In some embodiments of the invention, the rates of exothermic and/or endothermic hydrogen production may be controlled so that the hydrogen storage system 100 is thermally neutral. In this case, heat released 150 by the exothermic hydrogen generator 140 is balanced by heat absorbed by the endothermic hydrogen generator 120*" (SECTION 0040). In light of this disclosure, the examiner ***still*** believes that the specification leads into the teaching that the net amount (release) of heat is low and/or neglectable. That is, the system is thermally neutral and/or balanced so that ***no*** net amount of heat is released or transferred.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Language Suggestion

3. Claim 81: it is suggested to change the limitation "*laptop*" to "*laptop computer*" so as to clearly specify a portable electronic device and to better reflect the intended scope of the claim. Appropriate correction is required. Otherwise applicant is required to clearly specify what kind of "laptop portable electronic device" the claim intends to recite.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 65-66, 72-77 and 79-82 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follows: (claim 65) a) "*to transfer a net amount of heat*". In this regard, it is noted the foregoing limitation is not supported by the applicant's original disclosure because the disclosure only states that: "*the rates of endothermic and exothermic hydrogen generation may be balanced to provide an overall thermally neutral hydrogen generation, or even a net endothermic hydrogen generation*" (SECTION 0033), and "*the net release of heat 180 by the hydrogen storage system 100 is low. In some embodiments of the invention, the rates of exothermic and/or endothermic hydrogen production may be controlled so that the hydrogen storage system 100 is thermally*

neutral. In this case, heat released 150 by the exothermic hydrogen generator 140 is balanced by heat absorbed by the endothermic hydrogen generator 120" (SECTION 0040). In light of this disclosure, the examiner *still* believes that the specification leads into the teaching that the net amount (release) of heat is low and/or neglectable. That is, the system is thermally neutral and/or balanced so that ***no*** net amount of heat is transferred or released.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 65-66, 72-77, 79 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al 5702491 in view of Basch 3607066.

The present application is directed to an apparatus wherein the disclosed inventive concept comprises the specific hydrogen generators coupled to a fuel cell.

With respect to claims 65-66, 72, 79 and 82:

Long et al teach a portable hydrogen generator (TITLE/COL 1, lines 8-10/COL 12, lines 24-26) which utilizes both exothermic and endothermic reactions therein (COL 8, lines 1-17). Long et al disclose that hydrogen generator 10 includes a thermally isolated container 12 (COL 3, lines 62-67). It is disclosed that the heat generated by exothermic reaction of the $LiAlH_4$ is used to generate additional hydrogen by the endothermic thermal decomposition (COL 8, lines 1-17/COL 4, lines 2-9). Long et al teach that by providing a thermally isolated environment for the hydrogen generator, and by controlling the supply of water for hydrolysis and the temperature, the generation of hydrogen is maintained stable and controllable through balancing exothermic and endothermic reactions of Table III (COL 8, lines 8-13). It is also disclosed that by utilizing both exothermic and endothermic reactions in hydrogen generator 10, the typical problems associated with volumetric expansions are avoided (COL 8, lines 16-35). *Thus, the disclosed hydrogen generator itself is capable of being simultaneously used as both the exothermic hydrogen generator and the endothermic hydrogen generator .*

Regarding claims 73 and 75:

Long et al disclose that the primary candidates for use with the hydrogen generator as the primary chemical hydride includes $NaBH_4$ (COL 5, lines 57-63). It is disclosed that the ternary hydrides can be in liquid state (COL 5, line 60-61). TABLE II shows excess water reaction (TABLE II). *Thus, it does encompass the formation of aqueous solutions of chemical hydride materials.*

On the matter of claims 74-75:

Long et al also makes known that metal hydrides can be used as the chemical hydride (COL 3, lines 8-16/ COL 3, line 67 to COL 4, line 9/COL 5, lines 49-56/ TABLE I).

With reference to claim 76:

Long et al further disclose that the generation of hydrogen is maintained stable and controllable through balancing exothermic and endothermic reactions (COL 8, lines 1-18).

Regarding claim 79:

It is also taught that hydrogen generated in the hydrogen generator is supplied for used to a fuel cell (COL 4, lines 54-60). Long et al teach fuel cells (COL 4, lines 54-60/ COL 5, lines 54-56). *It is thus noted that the thermal characteristics of the fuel cell are inherent to the same fuel cell application therein.*

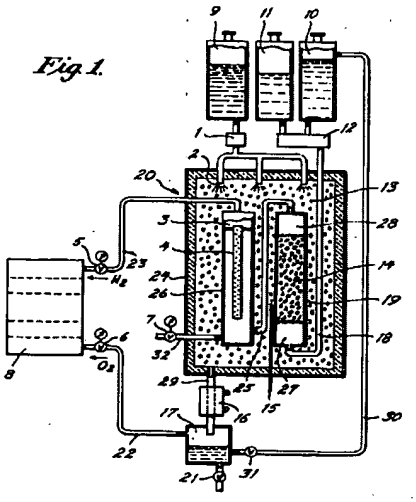
Long et al disclose an exothermic and endothermic hydrogen generating apparatus according to the aforementioned. However, Long et al do not disclose the specific compartments; and the device coupled to the fuel cell to receive the power.

With respect to claims 65-66, 79 and 82:

Basch discloses a process and apparatus for the simultaneous production of hydrogen and oxygen gases in which an oxygen generating compound is catalytically decomposed, the oxygen is separated and concurrently therewith a hydrogen generating compound is catalytically decomposed by means of the heat generated by the decomposition of the oxygen generating compound (ABSTRACT/COL 1, lines 60-72). In this process, the heat energy liberated in the decomposition of one compound is directly utilized for heating the hydrogen-containing compound (COL 1, lines 60-72). *Thus, Basch at once envisages having heat transferred from one chamber into another to produce hydrogen.*

Basch discloses that his apparatus is for use in electrochemical fuel cells and fuel cell batteries (COL 1, line 3-7). It is further disclosed that, in the process, the hydrogen-containing compound is contained in suitable means which are in thermal transfer relationship with one converting means. Preferably, it is situated within the physical confines of the hydrogen compound decomposition means (COL 1, line 74 to COL 2, line 3). In particular, the apparatus comprises a decomposition chamber certain compounds and is in heat relationship therewith a converter for the decomposition or conversion of the hydrogen-containing compound and, if desired, other equipment or device for the generation and recovery of the hydrogen (COL 2, lines 10-25). It is further disclosed that said converter, and if applicable, said other equipment may be contained within said decomposition chamber, or if desired, it may be arranged in immediate vicinity thereto with the provision of means adapted to provide for the heat exchange between the interior of said decomposition chamber and said converter, and if applicable, said other hydrogen generating and recovery equipment (COL 2, lines 10-25). *Thus, Basch at once envisages having heat transferred from one chamber into another to produce hydrogen; as well as the use of more than one (1) hydrogen generating equipment* (← **emphasis added**) *as instantly claimed.*

Figure 1 below illustrates a diagrammatic representation of an integrated apparatus in which the hydrogen converter 19 is arranged within the decomposition chamber 24 and in which the generated hydrogen is directly fed to a fuel cell (COL 2, lines 26-30/ COL 5, line 10 to COL 6, line 14). *Thus, the hydrogen generating equipment is coupled to the fuel cell; and wherein the hydrogen converter 19 is disposed inside the decomposition chamber 24.*



As to claim 77:

As evident from Figure 1 above, the hydrogen converter 19 is coupled to a fuel cell 8 (FIGURE 1); wherein both the hydrogen converter 19 and the decomposition chamber 24 are connected to the fuel cell by tubing 23 and line 22 (*the ports*) (Figure 1 and COL 5, lines 15-25 and lines 49-60).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the specific compartments of Basch in the hydrogen generating apparatus of Long et al because Basch teaches that it is an object of his invention to provide an apparatus for the simultaneous production of hydrogen in a simplified and more economical manner; to provide an apparatus which is adapted for the carrying out of the combined process for the generation of hydrogen and oxygen gas in a single operation in an apparatus which requires less space than the apparatus of the prior art; and to provide an integrated apparatus which comprises the means of the simultaneous, continuous production of gaseous hydrogen and oxygen in a more economical manner. Thus, Basch at once envisages having heat transferred from one chamber into another to produce hydrogen; as well as the use of

more than one (1) hydrogen generating equipment (← **emphasis added**) as instantly claimed. *It is also noted that both Long et al and Basch are pertinent to one another as they both address the same problem of hydrogen generation for fuel cell applications. In addition, Long et al's teaching of employing two different hydrogen generation features is consistent with Basch's teachings of also using more than one (1) device or equipment for the generation of hydrogen. Thus, Basch's teachings envision adding more hydrogen generation devices therein.*

Moreover, it has been held that making a device/feature either portable, integral and/or separable is obvious. Succinctly stated, fact that a claimed device/apparatus is made portable, separable, integral or adjustable is not sufficient by itself to patentably distinguish over an otherwise old device unless there are new or unexpected results as it is a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant. In re Larson 144 USPQ 347, 349. In re Dulberg 129 USPQ 348, 349. In re Stevens 101 USPQ 284. In re Lindberg 93 USPQ 23.

9. Claims 65-66, 72-77, 79 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Basch 3607066 in view of Long et al 5702491.

The present application is directed to an apparatus wherein the disclosed inventive concept comprises the specific hydrogen generators coupled to a fuel cell.

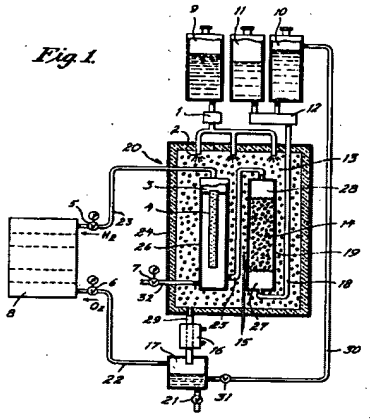
With respect to claims 65-66, 79 and 82:

Basch discloses a process and apparatus for the simultaneous production of hydrogen and oxygen gases in which an oxygen generating compound is catalytically decomposed, the oxygen

is separated and concurrently therewith a hydrogen generating compound is catalytically decomposed by means of the heat generated by the decomposition of the oxygen generating compound (ABSTRACT/COL 1, lines 60-72). In this process, the heat energy liberated in the decomposition of one compound is directly utilized for heating the hydrogen-containing compound (COL 1, lines 60-72). *Thus, Basch at once envisages having heat transferred from one chamber into another to produce hydrogen.*

Basch discloses that his apparatus is for use in electrochemical fuel cells and fuel cell batteries (COL 1, line 3-7). It is further disclosed that, in the process, the hydrogen-containign compound is contained in suitable means which are in thermal transfer relationship with one converting means. Preferably, it is situated within the physical confines of the hydrogen compound decomposition means (COL 1, line 74 to COL 2, line 3). In particular, the apparatus comprises a decomposition chamber certain compounds and is in heat relationship therewith a converter for the decomposition or conversion of the hydrogen-containing compound and, if desired, other equipment or device for the generation and recovery of the hydrogen (COL 2, lines 10-25). It is further disclosed that said converter, and if applicable, said other equipment may be contained within said decomposition chamber, or if desired, it may be arranged in immediate vicinity thereto with the provision of means adapted to provide for the heat exchange between the interior of said decomposition chamber and said converter, and if applicable, said other hydrogen generating and recovery equipment (COL 2, lines 10-25). *Thus, Basch at once envisages having heat transferred from one chamber into another to produce hydrogen; as well as the use of more than one (1) hydrogen generating equipment* (← **emphasis added**) *as instantly claimed.*

Figure 1 below illustrates a diagrammatic representation of an integrated apparatus in which the hydrogen converter 19 is arranged within the decomposition chamber 24 and in which the generated hydrogen is directly fed to a fuel cell (COL 2, lines 26-30/ COL 5, line 10 to COL 6, line 14). *Thus, the hydrogen generating equipment is coupled to the fuel cell; and wherein the hydrogen converter 19 is disposed inside the decomposition chamber 24.*



As to claim 77:

As evident from Figure 1 above, the hydrogen converter 19 is coupled to a fuel cell 8 (FIGURE 1); wherein both the hydrogen converter 19 and the decomposition chamber 24 are connected to the fuel cell by tubing 23 and line 22 (*the ports*) (Figure 1 and COL 5, lines 15-25 and lines 49-60).

Basch makes known an apparatus for the production of hydrogen gases for fuel cells as described above. However, Basch does not expressly disclose the specific endothermic-exothermic hydrogen generation configuration.

With respect to claims 65-66, 72, 79 and 82:

Long et al teach a portable hydrogen generator (TITLE/COL 1, lines 8-10/COL 12, lines 24-26) which utilizes both exothermic and endothermic reactions therein (COL 8, lines 1-17).

Long et al disclose that hydrogen generator 10 includes a thermally isolated container 12 (COL 3, lines 62-67). It is disclosed that the heat generated by exothermic reaction of the $LiAlH_4$ is used to generate additional hydrogen by the endothermic thermal decomposition (COL 8, lines 1-17/COL 4, lines 2-9). Long et al teach that by providing a thermally isolated environment for the hydrogen generator, and by controlling the supply of water for hydrolysis and the temperature, the generation of hydrogen is maintained stable and controllable through balancing exothermic and endothermic reactions of Table III (COL 8, lines 8-13). It is also disclosed that by utilizing both exothermic and endothermic reactions in hydrogen generator 10, the typical problems associated with volumetric expansions are avoided (COL 8, lines 16-35). *Thus, the disclosed hydrogen generator itself is capable of being simultaneously used as both the exothermic hydrogen generator and the endothermic hydrogen generator*.

Regarding claims 73 and 75:

Long et al disclose that the primary candidates for use with the hydrogen generator as the primary chemical hydride includes $NaBH_4$ (COL 5, lines 57-63). It is disclosed that the ternary hydrides can be in liquid state (COL 5, line 60-61). TABLE II shows excess water reaction (TABLE II). *Thus, it does encompass the formation of aqueous solutions of chemical hydride materials.*

On the matter of claims 74-75:

Long et al also makes known that metal hydrides can be used as the chemical hydride (COL 3, lines 8-16/ COL 3, line 67 to COL 4, line 9/COL 5, lines 49-56/ TABLE I).

With reference to claim 76:

Long et al further disclose that the generation of hydrogen is maintained stable and controllable through balancing exothermic and endothermic reactions (COL 8, lines 1-18).

Regarding claim 79:

It is also taught that hydrogen generated in the hydrogen generator is supplied for used to a fuel cell (COL 4, lines 54-60). Long et al teach fuel cells (COL 4, lines 54-60/ COL 5, lines 54-56). *It is thus noted that the thermal characteristics of the fuel cell are inherent to the same fuel cell application therein.*

In view of these disclosures, it would have been obvious to one skilled in the art at the time the invention was made to use the specific endothermic-exothermic hydrogen generation configuration of Long et al in the apparatus for the production of hydrogen of Basch because Long et al disclose that such hydrogen generator employs an exothermic hydrolysis reaction and an endothermic thermal decomposition to provide a controllable generation of hydrogen from a container arrangement. Thus, the entire process balances the exothermic chemical reaction with the endothermic decomposition therein to provide a satisfactory generation of hydrogen. *In addition, Long et al's teaching of employing two different hydrogen generation features is consistent with Basch's teachings of also using more than one (1) device or equipment for the generation of hydrogen. Thus, Basch's teachings envision adding more hydrogen generation devices therein. It is also noted that both Long et al and Basch are pertinent to one another as they both address the same problem of hydrogen generation for fuel cell applications.*

10. Claims 80-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over: a) Long et al 5702491 in view of Basch 3607066; and/or b) Basch 3607066 in view of Long et al 5702491 as applied to claims 65 above, and further in view of Corey et al 2004/0209137.

Long et al'491-Basch'066 and/or Basch'066-Long et al'491 are both applied, argued and incorporated herein for the reasons above. Nevertheless, none of the applied references expressly disclose the specific portable electronic devices.

Corey et al disclose that because of their ability to provide sustained electrical energy, fuel cells have increasingly been considered as a power source for smaller devices including consumer electronics such as portable computers and mobile phones (SECTION 0006).

In view of the above, it would have been obvious to one skilled in the art at the time the invention was made to couple the specific portable electronic devices of Corey et al to receive power from the fuel cell apparatus of Long et al'491-Basch'066 and/or Basch'066-Long et al'491 et al as Corey et al discloses because of their ability to provide sustained electrical energy, fuel cells have increasingly been considered as a power source for smaller devices including consumer electronics such as portable computers and mobile phones. Thus, fuel cells are generally considered a viable power source for small devices such as portable computers and mobile phones. Thus, electrochemical energy conversion of fuel cells is useful to energize such energy powered devices.

Response to Arguments

11. Applicant's arguments with respect to claims 65-66, 72-77 and 79-82 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Alejandro whose telephone number is (571) 272-1282. The examiner can normally be reached on Monday-Thursday (8:00 am - 6:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Raymond Alejandro
Examiner
Art Unit 1745